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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,811

01/21/2004

Jin Ho Hyun

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6196

35884

7590

09/30/2008

LEE, HONG, DEGERMAN, KANG & WAIMEY  
660 S. FIGUEROA STREET  
Suite 2300  
LOS ANGELES, CA 90017

EXAMINER

SCHNURR, JOHN R

ART UNIT

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2623

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/762,811	<b>Applicant(s)</b> HYUN, JIN HO	
	<b>Examiner</b> JOHN R. SCHNURR	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action is in response to Amendment after Non-Final Rejection filed 06/23/2008. Claims 1 and 4-6 are pending and have been examined.

#### ***Response to Arguments***

2. Applicant's arguments filed 06/23/2008 have been fully considered but they are not persuasive.

In response to applicant's argument (Remarks pg. 4 para. 4 to pg. 5 para. 3) that the rejection of claims 1 and 4-6 should be withdrawn because Killian (US 6,163,316) does not teach "storing the XML-formatted EPG information and searched information by using a database management system API as claimed in claim 1 or storing the extracted metadata or the searched EPG information by using database management system API as claim in claim 6", the examiner respectfully disagrees. It is noted that the limitations of storing XML-formatted EPG information, searched information and the extracted metadata or the searched EPG are disclosed by Schrader (US 2002/0166123), [0086] and [0103]. Killian teaches the utilization of Application Programming Interfaces (API) to display and store EPG information. EPG data is retrieved via EPG API, col. 7 lines 49-58, and displayed via Control API, col. 6 line 63 to col. 7 line 7. EPG database 48 is integral to receiver 10 and periodic updates are downloaded from external service providers and stored in the database, col. 4 lines 14-17. EPG API 60 is used for manipulating data contained in database 48, col. 7 lines 49-58. Therefore EPG API 60 is clearly used to store EPG data in the database.

***Claim Objections***

3. Claim 6 is objected to because of the following informalities: On line 17 the term "EGG" should read "EPG". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **1 and 4-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader et al. (US Patent Application Publication 2002/0166123)**, herein Schrader, in view of **Freeman et al. (US Patent Application Publication 2001/0013123)**, herein Freeman, and further in view of **Killian (US Patent 6,163,316)**.

Consider **claims 1 and 6**, Schrader clearly teaches a digital broadcast storage device using a mark-up language. **(Fig. 5: Shows a DVR 530 for receiving and storing digital broadcast data, [0078] Schrader. The received data may be transmitted as Extensible Markup Language (XML), [0047].)**

user interface means for allowing EPG (Electronic Program Guide) information to be used or searched; **(Fig. 8 shows a display of a user navigation guide which enables the user to use or search program information with display area 816 or course navigation bar 818. [0103])**

metadata processing means for processing and parsing received XML (Extensible Markup Language)--formatted EPG information; **(Fig. 5: Receiver 120 receives and processes XML data. [0047])**

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storage means for storing the processed and parsed EPG information; **(Fig. 5: Mass storage device 542 stores the processed broadcast information. [0086])**

searching means for using at least one of a title, a keyword or a genre according to a user's request and providing the searched information to user through a user interface means; **(Fig. 8: Navigation guide 800 allows the user to search the broadcast information using a genre, in this case a sports genre is selected and presented in area 816, [0103]-[0104].)** and

controlling means for controlling the processing, storage and searching of the received and parsed EPG information. **(Fig. 5: Processing unit 532 controls operation of the STB 120. [0085])**

Schrader further teaches that the device contains information about viewer preferences, [0091]. However, Schrader does not explicitly teach extracting the preferences based on either user input or from a watch record based on digital broadcasts previously accessed by the user. Specifically, Schrader does not teach:

wherein the metadata processing means further comprises preference extracting means for extracting a preference that is either directly input by a user or automatically created from a watch record based upon specific digital broadcasts previously accessed by the user.

In an analogous art, Freeman, which discloses a system for receiving digital broadcast information, clearly teaches:

wherein the metadata processing means further comprises preference extracting means for extracting a preference that is either directly input by a user or automatically created from a watch record based upon specific digital broadcasts previously accessed by the user. **(User preference information may be directly input from the user or it may be collected based on the programming selections of the user. [0031])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Schrader by obtaining the viewer preference information directly from the user or from the viewing history of the user, as taught by Freeman, for the benefit of providing programming that is of interest to the viewer (See [0008] Freeman).

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Schrader further teaches allowing the processed EPG information and searched information to be displayed (**Fig. 8: The EPG information can be displayed to the user, [0103].**) and allowing the processed EPG information and searched information to be stored (**Fig. 5: EPG database 548 stored the EPG data, [0086].**). However, Schrader combined with Freeman does not explicitly teach displaying EPG information using an user interface API and storing processed EPG information and searched information using a database management API.

In an analogous art, Killian, which discloses a system for implementing an EPG, clearly teaches displaying EPG information using an user interface API and storing EPG information using a database management API. (**Fig. 2: Toolkit 58 includes APIs 60. These APIs can be used for displaying EPG information and manipulating program listing information stored in database 48, col. 4 lines 14-17; column 6 line 63 to column 7 line 7; column 7 lines 49-58.**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Schrader and Freeman by using APIs to display and maintain the EPG information, as taught by Killian, for the benefit of allowing third party applications to utilize the functionality of the user device (See column 6 lines 32-56 Killian).

Consider **claim 4**, Schrader modified by Freeman and Killian, as in claim 1, clearly teaches a digital broadcast storage device using a mark-up language.

database managing means (**CPU 532, application specific integrated circuit (ASIC) 534, mass storage device 542. Schrader**) for managing information of the storage means; (**The system maintains a meta-data directory of recorded programs, index files and control files. [0127] Schrader**)

media file system managing means (**DVR device 530, mass storage device 542, Schrader**) for managing a file system; (**FIGS. 17a through 17c illustrate an association of various enhanced files with a DVR index file. [0134] Schrader**) and a

media router (**video output circuit 560**), **Schrader** for controlling a peripheral device (**display device 122, Schrader**).

Consider **claim 5**, Schrader modified by Freeman and Killian, as in claim 1, clearly teaches a digital broadcast storage device using a mark-up language.

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a media management engine adapted to manage at least one of recording and reproduction of at least one of digital video and digital audio (**Fig. 5: ASIC 534 is coupled to system memory 538 and storage device 542 to permit data to be read from and written to the system memory, [0085] Freeman. Video data 550, digital programming [0040] Freeman, is stored on the mass storage device 542. [0086] Schrader**)

a metadata processing engine adapted to process and store the XML-formatted information; (**Fig. 16b and 16c: The system maintains a meta-data directory containing program information obtained from the XML formatted data. [0127] Schrader**)

an XML parsing engine adapted to parse the stored XML-formatted information. (**Data processing engine is adapted to process the received XML data. [0094] Schrader**)

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN R. SCHNURR whose telephone number is (571)270-1458. The examiner can normally be reached on Monday - Friday, 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRS

/Christopher Grant/  
Supervisory Patent Examiner, Art Unit 2623